

AMENDMENTS TO THE DRAWINGS:

Please amend Figures 23-25 to add the label "Prior Art," as shown in the drawing Replacement Sheets attached hereto.

Attachments: Three Drawing Replacement Sheets containing Figures 23A-23C, 24A-24C, 25A, and 25B.

REMARKS

In the outstanding Office Action, the Examiner objected to the drawings; rejected claims 1-3, 8, and 9 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. US 2003/0032231 to Efland et al. ("Efland") in view of U.S. Patent Publication No. US 2003/0036025 to Hirooka ("Hirooka"); objected to claims 4-7 as being dependent on a rejected base claim; and allowed claims 10-12.

By this amendment, Applicant has amended Figures 23A-23C, 24A-24C, 25A, and 25B, and has amended claim 1 to more appropriately define the invention. Claims 1-14 remain pending in this application, with claims 1-12 currently presented for examination.

I. Allowable subject matter

Applicant gratefully acknowledges the Examiner's indication of allowable subject matter in claims 4-7, and the allowance of claims 10-12.

II. Objections to the drawings

In the Office Action, the Examiner objected to the drawings, stating "[f]igures 23, 24, and 25 should be designated by a legend such as --Prior Art--." Office Action, page 2. Applicant hereby proposes amending Figures 23A-23C, 24A-24C, 25A, and 25B as shown in the attached drawing Replacement Sheets, to add the label "Prior Art." Applicant respectfully requests that the Examiner approve the amendment to Figures 23A-23C, 24A-24C, 25A, and 25B, and withdraw the objection to the drawings.

III. Rejection under 35 U.S.C. § 103(a)

Regarding the Examiner's rejection of claims 1-3, 8, and 9 under 35 U.S.C. § 103(a), Applicant respectfully disagrees with the Examiner's assertions and conclusions as set forth in the outstanding Office Action.¹ Accordingly, Applicant respectfully traverses this rejection on the ground that a *prima facie* case of obviousness has not been established.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. See M.P.E.P. §2143.03, 8th Ed. (Rev. 4), October, 2005. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of the three requirements must "be found in the prior art, and not be based on applicant's disclosure." See M.P.E.P. § 2143, 8th Ed. (Rev. 4), October, 2005. The Examiner has failed to establish a *prima facie* case of obviousness because, at a minimum, the references, whether taken alone or in combination, fail to teach or suggest each and every element of the claims.

Claim 1 recites a combination including at least "forming a first pattern in a first region over a semiconductor substrate," and "forming a second pattern ... over the

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement of characterization in the Office Action.

semiconductor substrate" (emphasis added). Efland, whether taken alone or in combination with Hirooka, fails to teach or suggest at least this element.

At page 3 of the Office Action, the Examiner characterizes Efland, stating "Efland teaches ... forming a first pattern 106 ... forming a second pattern in a second region, also labeled 106." Contrary to the Examiner's characterization, Efland actually teaches: "MOAT mask patterns regions of substrate 100 for the shallow trench etch to form shallow trench isolation (STI) 106." Efland, paragraph [0042] (emphasis added). Efland thus teaches forming shallow trench isolation regions 106 in substrate 100. This cannot constitute a teaching of "forming a first pattern in a first region over a semiconductor substrate," and "forming a second pattern ... over the semiconductor substrate," as recited in claim 1 (emphasis added).

Moreover, claim 1, as amended, further recites "depositing an interlayer insulation film to cover the first and second patterns, the interlayer insulation film filling a region between the first and second patterns." Accordingly, if the Examiner's characterization of Efland is assumed to be correct, then since shallow trench isolation regions 106 are formed in the substrate, a deposited film cannot fill a region between the shallow trench isolation regions 106. Accordingly, Efland also fails to teach or suggest at least "depositing an interlayer insulation film to cover the first and second patterns, the interlayer insulation film filling a region between the first and second patterns," as recited in claim 1.

Hirooka, cited by the Examiner at page 4 of the Office Action for allegedly teaching "alignment marks matched with patterns," fails to cure the above-noted

deficiencies of Efland. Hirooka teaches “a novel exposure process that is effectively applicable for use in the identifier recording method” (paragraph [0018]), but is silent as to at least forming a first and second pattern. Hirooka thus fails to teach or suggest at least “forming a first pattern in a first region over a semiconductor substrate,” and “forming a second pattern ... over the semiconductor substrate,” as recited in claim 1.

Because Efland in view of Hirooka fails to teach or suggest every element recited in claim 1, a *prima facie* case of obviousness has not been established. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claim 1 under 35 U.S.C. § 103(a).

Claims 2, 3, 8, and 9 depend from claim and thus require all of the elements recited in claim 1. Because Efland in view of Hirooka fails to teach or suggest every element recited in claim 1, that combination of references also fails to teach or suggest every element required by the dependent claims. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 2, 3, 8, and 9 under 35 U.S.C. § 103(a).

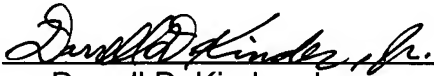
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: February 13, 2006

By: 
Darrell D. Kinder, Jr.
Reg. No. 57,460

Attachments: Three Drawing Replacement Sheets containing Figures 23A-23C,
24A-24C, 25A, and 25B